EXHIBIT 5

be the subject of third party discovery during this lawsuit. Defendants therefore reserve the right to modify, amend, or supplement these Invalidity Contentions if additional information becomes available during the course of discovery.

B. Anticipating Prior Art

In accordance with P.R. 3-3, prior art references anticipating one or more of the Asserted Claims are listed in the tables below. The attached claim charts in Exhibits A1 through G22 demonstrate where each limitation of the anticipated claims is found in the references listed below, either expressly or inherently in the larger context of the passage, or inherently as the reference as a whole is understood by a POSA. The following patents, publications, and/or systems are prior art under at least 35 U.S.C. §§ 102(a), (b), (e), and/or (g).

TABLE 1: Prior Art Anticipating the Asserted Claims and/or Rendering the Asserted Claims Obvious

Patent No. / Publication	Earliest Priority Date	Publication Date	Exhibits
US 5,896,383 ("Wakeland")	May 1, 1997	Apr. 20, 1999	Exhibit A-1 Exhibit B-40 Exhibit C-9 Exhibit D-1 Exhibit E-1 Exhibit F-1
Router Plugins – A Software Architecture for Next Generation Routers ("Decasper 1")		By Oct. 1998	Exhibit A-42, 50, & 51 Exhibit B-41, 50, & 51 Exhibit C-40, 58, & 59 Exhibit D-2, 55, & 56 Exhibit E-2, 55, & 56 Exhibit F-2, 55, & 56
A Scalable, High Performance Active Network Node ("Decasper 2")		Apr. 1998	Exhibit A-43, 50, & 51 Exhibit B-42, 50, & 51 Exhibit C-41, 58, & 59 Exhibit D-3, 55, & 56

Patent No. / Publication	Earliest Priority Date	Publication Date	Exhibits
			Exhibit E-26 Exhibit F-26
US 6,876,654 ("Hegde")	Apr. 10, 1998	Apr. 5, 2005	Exhibit A-22 Exhibit B-14 Exhibit C-14 Exhibit D-27 Exhibit E-27 Exhibit F-27
Check Point FireWall-1 White Paper ("Firewall-1 (Jan. 1997)")		Jan. 1997	Exhibit A-23 & 49 Exhibit B-21 & 49 Exhibit C-16 & 57 Exhibit D-28 & 54 Exhibit E-28 & 54 Exhibit F-28 & 54
Check Point FireWall-1 White Paper ("Firewall-1 (June 1997)")		June 1997	Exhibit A-49 Exhibit B-49 Exhibit C-57 Exhibit D-54 Exhibit E-54 Exhibit F-54
Computer Networks, Third ed. ("Tanenbaum")		1996	Exhibit A-24 Exhibit B-22 Exhibit C-17 Exhibit D-29 Exhibit E-29 Exhibit F-29
US 6,131,163 ("Wiegel")	Feb. 17, 1998	Oct. 10, 2000	Exhibit A-25 Exhibit B-23 Exhibit C-18 Exhibit D-31 Exhibit E-31 Exhibit F-31

Patent No. / Publication	Earliest Priority Date	Publication Date	Exhibits
			Exhibit F-53
Check Point FireWall-1 Architecture and Administration Version 4.0 ("Firewall-1 (Sept. 1998)")		September 1998	Exhibit A-48 & 49 Exhibit B-48 & 49 Exhibit C-56 & 57 Exhibit D-54 & 55 Exhibit E-54 & 55 Exhibit F-54 & 55
The AltaVista Firewall 1997 ("Smith")		1997	Exhibit A-53 Exhibit B-53 Exhibit C-61 Exhibit D-58 Exhibit E-58 Exhibit F-58
US 5,898,830 ("Wesinger")	October 17, 1996	April 27, 1999	Exhibit A-52 Exhibit B-52 Exhibit C-60 Exhibit D-57 Exhibit E-57 Exhibit F-57
US 5,905,873 ("Hartmann")	January 16, 1997	May 18, 1999	Exhibit A-54 Exhibit B-54 Exhibit C-62 Exhibit D-59 Exhibit E-59 Exhibit F-59
International Patent Pub. No. WO97/24841 ("Cheriton")	December 29, 1995	July 10, 1997	Exhibit A-55 Exhibit B-55 Exhibit C-63 Exhibit D-60 Exhibit E-60 Exhibit F-60

Patent No. / Publication	Earliest Priority Date	Publication Date
Montz & Peterson, Controlled Flexibility in System Design		Sept. 7, 1998
EP 0893926	July 23, 1997	Jan. 27, 1999
EP 0928090	Dec. 30, 1997	July 7, 1999
PVM: Parallel Virtual Machine		1994
Krupzak et al., Increasing the Portability and ReUsability of Protocol Code		1997
Feldmeier, Multiplexing Issues in Communication System Design		1990
Check Point Software Technologies Ltd. FireWall-1, Security Target		Oct. 1999
Roesch, Snort-Lightweight Intrusion Detection for Networks		Nov. 1999
US Patent No 5,361,256	Nov. 27, 1992	Nov. 1, 1994
US Patent No 5,491,693	Dec. 30, 1993	Feb. 13, 1996
US Patent No 5,557,798	July 27, 1989	Sept. 17, 1996
US Patent No 6,101,556	Jan. 7, 1997	Aug. 8, 2000
US Patent No 6,131,163	Feb. 17, 1998	Oct. 10, 2000
US Patent No 6,182,146	June 27, 1997	Jan. 30, 2001
US Patent No 6,195,664	Feb. 21, 1997	Feb. 27, 2001
US Patent No 6,301,668	Dec. 29, 1998	Oct. 9, 2001
US Patent No 6,400,729	Sept. 11, 1998	June 4, 2002
US Patent No 6,477,651	Jan. 8, 1999	Nov. 5, 2002
US Patent No 6,499,107	Dec. 29, 1998	Dec. 24, 2002
US Patent No 6,785,821	Jan. 8, 1999	Aug. 31, 2004
US Patent No 6,816,973	Dec. 29, 1998	Nov. 9, 2004
Check Point Firewall-1, Redefining the Virtual Private Network		1998
Check Point Firewall-1, Virtual Private Network Security Components, A Technical Whitepaper		March 23, 1998
White Paper on Enterprise Traffic Management		Sept. 1997

Section 103. The identified references in themselves evidence that there were demands in the design community and in the marketplace to utilize such a combination (i.e., to design systems and processes for identifying information in data packets).

If and to the extent that Plaintiff challenges a combination of prior art with respect to a particular element, Defendants reserve the right to supplement these contentions to further specify the motivation to combine the prior art. Defendants may rely on cited or uncited portions of the prior art, other documents, and expert testimony to establish that a POSA would have been motivated to modify or combine the prior art so as to render the claims invalid as obvious.

Defendants may rely upon a subset of the prior art or all the prior art cited in their Invalidity Contentions depending upon the Court's claim construction and further investigation.

Defendants' contention that the references in this section, in various combinations, render the Asserted Claims of the Patents-in-Suit obvious under 35 U.S.C. § 103 is in no way an admission or suggestion that each reference, invention, knowledge, and/or activity does not independently anticipate the Asserted Claims under 35 U.S.C. § 102.

As set forth in the attached claim charts, the references, inventions, knowledge, and/or activities disclosed herein may be combined with other references, inventions, knowledge, and/or activities disclosed herein and/or with the knowledge of POSA during the relevant time period to render obvious, and therefore invalid, each of the Asserted Claims of the Patents-in-Suit.

For example, the references describing The Crossbow System (including Decasper 1 through 7) are directed to the same extended system, and it was therefore obvious to combine any of them with each other, for any of the elements they teach (as detailed in their respective charts). Indeed, they often expressly cite and supplement one another. *See*, *e.g.*, Decasper 3 at 11 (citing

Decasper 1), 9 (citing Decasper 5); Decasper 5 at 616 (citing Decasper 6). Motivation for these combinations includes achieving the most capable, fully-featured, and fully-detailed system.

As another example, it was obvious to combine The Crossbow System, and/or any of the references describing it, with any of the prior art teaching firewalls and/or application gateways, in order to apply the features and efficiencies of The Crossbow System to this prior art. Such combinations are expressly invited and motivated. *E.g.*, Decasper 1 at 230 ("Our framework is also very well suited to Application Layer Gateways (ALGs), and to security devices like Firewalls. In both situations, it is very important to be able to quickly and efficiently classify packets into flows, and to apply different policies to different flows: these are both things that our architecture excels at doing."); Decasper 7 at 3. This firewall and/or application gateway prior art includes (with some exemplary citations): Albert (*id*. at 2:26-30 ("may function as a proxy, firewall, or an intrusion detection device")); Beurket (*id*. at 1:62-67); Hartman (*id*. at 4 ("firewall and routers")); Hughes (*id*. at 2:52-54 ("a router, a bridge, or a firewall")); Kerr (*id*. at 4:46 ("firewalls")); Spatscheck (*id*. at 2 ("Scout is designed for . . . application-level gateways (firewalls, web caches proxies)"); Ylonen (*id*. at 2 ("external gateway (e.g., router or firewall)"); The Scout System, and/or any of the references describing it (*e.g.*, Mosberger I at 161 ("Network firewall")); Wiegel (*id*. at 12:22 ("firewall")); Lin (*id*. at 2:57-58 ("such as a firewall")); FireWall-1, and/or any of the references describing it; Smith (*id*. at 17 ("The AltaVista Firewall")); Wesinger (*id*. at Abstract ("firewall")). These combinations are nothing more than a combination of prior art elements according to known methods to yield predictable results.

As another example, it was obvious to combine The Crossbow System, and/or any of the references describing it, with any of the prior art teaching end systems or routers which send and receive network data, in order to apply the features and efficiencies of The Crossbow System to

this prior art. Such combinations are expressly invited and motivated. *E.g.*, Decasper 1 at 229 ("high performance . . . router software architecture" that "allows . . . plugins, to be dynamically added"); Decasper 2 at 1 ("high performance Active Network Node [with] automatic, rapid protocol deployment"), 9 ("may be configured to serve as an end system or as a router"); Decasper 3 at 16 ("end systems"); Decasper 5 at 609 ("MOTIVATION"), 615 ("may be configured to serve as an end system or as a router."); Decasper 6 at 310 ("The router is a third PC in-between the source and destination [end systems], of course running Crossbow as well [at the source and destination]."). This end system or router prior art includes (with some exemplary citations): Albert (*id*. at 4:12); Bailey (*id*. at 1); Brendel (*id*. at Abstract); Hartman (*id*. at 4); Hegde (*id*. at 1:9-10); Hughes (*id*. at 2:52-54); Kerr (*id*. at 1:52); Kuznetsov (*id*. at 6:25-26); Lin (*id*. at 6:12-37); Mittra (*id*. at 1); Moberg (*id*. at Abstract); Radogna (*id*. at 2:63); Spatscheck (*id*. at 2 ("firewalls and routers")); Taylor (*id*. at Abstract); Wakeland (*id*. at 3:52); Ylonen (*id*. at 2); The ASH System, and/or any of the references describing it (Wallach at 10); The SPIN System, and/or any of the references describing it (Fiuczynski at 1); The Scout System, and/or any of the references describing it (Spatscheck at 8-9)); NetScout Probe, and/or any of the references describing it (Probe Admin Guide at 2-1); PacketShaper, and/or any of the references describing it (Riddle at 5:53-6:17). These combinations are nothing more than a combination of prior art elements according to known methods to yield predictable results.

As another example, the references describing The Scout System (including Mosberger I, Mosberger II, Mosberger III, Mosberger IV, Spatscheck, Scout Manual, Montz, Hartman, Proebsting) are directed to the same extended system, and it was therefore obvious to combine any of them with each other, for any of the elements they teach (as detailed in the respective charts). Indeed, they often expressly cite and supplement one another. *See*, *e.g.*, Proebsting at 1 (citing

Exemplary disclosures and motivation regarding these limitations are detailed in the corresponding rows of the charts submitted with these contentions.

For example, it was obvious to apply the ’211 Patent, in order to create a more effective and efficient packet filter capable of dynamic adaptation at run-time involving application-specific protocols. This reference supplies additional disclosures and motivation regarding the Sequence of Routines Limitations; the TCP Conversion/Execution Limitations; the Queues Limitations; as well as other limitations of the Asserted Claims as set forth in the corresponding rows of the chart(s) for this reference. Obviousness is shown as these are nothing more than a combination of prior art elements according to known methods to yield predictable results. Moreover, combination with this reference merely constitutes use of a known technique to improve similar data transmission methods in the same way.

As another example, it was obvious to apply one or more of the Decasper References, in order to obtain a more effective and efficient packet filter that dynamically adapts, at run-time by identifying a sequence of plug-ins for a particular session or flow. These references supply additional disclosures and motivation regarding the Sequence of Routines Limitations; the Second/Third Routines Limitations; the Sessions/State Information Limitations; the Headers Limitations; the Stream Limitations; the Decryption Limitations; the HTTP Protocol Limitations; as well as other limitations of the Asserted Claims as set forth in the corresponding rows of the chart(s) for these references. Obviousness is shown as these are nothing more than a combination of prior art elements according to known methods to yield predictable results. Moreover, combination with one or more of these references merely constitutes use of a known technique to improve similar data transmission methods in the same way.

EXHIBIT 1

1. U.S. Provisional Patent Application Ser. No. 60/141,903 to Dietz, et al., filed on June 30, 1997
2. U.S. Patent No. 5,754,768 to Brech, et al., Filed on July 23, 1996
3. Birman, et al., The Maestro Group Manager: A Structuring Tool For Applications With Multiple Quality of Service Requirements, Cornell University (Feb. 4, 1997)
4. 97-1638, Van Renesse, et al., Building Adaptive Systems Using Ensemble, 1997
5. U.S. Patent No. 5,796,942 to Esbensen, filed on Nov. 21, 1996
6. U.S. Patent No. 6,098,172, Coss, et al., filed on Sep. 12, 1997
7. U.S. Patent No. 7,046,691 File History to Kadyk, et al., filed on Jun. 30, 2000
8. Doeringer, et al., A Survey of Light-Weight Transport Protocols for High-Speed Networks, IEEE Transactions on Communications, Vol. 38, No. 11, November, 1990
9. Digital Video Broadcasting Document A026 – Guidelines for Use of DVBSIS Specification – Network Independent Protocols for Interactive Services, May 15, 1997
10. Hari Adiseshu, et al., "A State Management Protocol for IntServ, DiffServ and Label Switching", Washington University in St. Louis,
11. Dawson R. Engler, et al., Exokernel: An Operating System Architecture for Application-Level Resource Management, M.I.T. Laboratory for Computer Science, December, 1995
12. ALTQ: Alternate Queueing for FreeBSD (version 0.4.2), 1998
13. ALTQ: Alternate Queueing for FreeBSD (version 1.1.3), 1999
14. Kenjiro Cho, A Framework for Alternate Queueing: Towards Traffic Management by PC-UNIX Based Routers, Sony Computer Science Laboratory, Inc., 1998
15. Gnome Mail Services, ANNOUNCE: Ethereal 0.2.0, July 14, 1998
16. David J. Wetherall, Service Introduction in an Active Network, Massachusetts Institute of Technology, November 2, 1998
17. Wetherall, et al., ANTS: A Toolkit for Building and Dynamically Deploying Network Protocols, Massachusetts Institute of Technology, April 1998
18. Avolio and Blask, Application Gateways and Stateful Inspection: A Brief Notice Comparing and Contrasting, January 22, 1998
19. Clark, et al., Architectural Considerations for a New Generation of Protocols, Laboratory for Computer Science, M.I.T., 1990
20. M. Yuhara, et al., Efficient Packet Demultiplexing for Multiple Endpoints and Large Messages, In Winter USENIX Conference, 1994
21. R. Morris, et al., The Click Modular Router, 17th ACM Symposium on Operating Systems Principles, December 1999
22. E. Kohler, et al., The Click Modular Router, Laboratory for Computer Science, M.I.T., 2000
23. Click Software Release History, Oct. 1999 – May 2000